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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

US EPA RECORDS CENTER REGION 5



422293

DATE: 6-18-93

SUBJECT: Review of Region V CLP Data
Received for Review on April 19, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory

TO: Data User: PRC Jay Thaler

We have reviewed the data for the following case.

SITE NAME: Treasure Island-Man (OH)

CASE and/or SAS NUMBER: 19635 (1) SDG NUMBER: MERS88

Number and Type of Samples: 9 (Soil)

CLP Sample Numbers: MERS 88-91, 94-97, MERS 99

CLP Laboratory: AATS Hrs. for Review 12.5
+ 2.2 TA

Following are our findings:

Data are Acceptable for use with qualification

JW

- () Data are acceptable for use.
(X) Data are acceptable for use with qualification.
() Data are preliminary, pending verification by laboratory.
() Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE : TREASURE ISLAND- MAN CASE: 19635(1)

LABORATORY: AATS SDG : MERS88

The laboratory's portion of this contains 9 low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The original ICP raw data (pages 122-200) are with case 19651 SDG: MDEQ85. The original As raw data are with case 19632 SDG: MFS379 for pages 217-219 and case 19587 SDG: MCJS51 for pages 221-230. The original sample tags are present. The original Federal Express airbills and chain of custody Forms are with case 19635 SDG: MERS84. The original Pb raw data (pages 249-253) are with case 19584 SDG: MCHX23. The original CN raw data (pages 296-297 and pages 298-300) are with case 19615 SDG: MBHN52 and 19632 SDG: MFS379. The original DC-1 Forms are with case 19635 SDG: MERS84. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

ICP ANALYSES:

The duplicate RPDs for Co(81.5 %), Ni(35.9 %), and V(35.3 %) were not flagged(*) by the laboratory because the duplicate differences did not exceed the technical criterion ($\pm 2 \times$ CRDL) for soil samples. All V and Ni data are acceptable. Co data are qualified below. The CCB contains Co (13.8 ug/L). The Co result for MERS99 is estimated(J) due to contamination.

The ICB and CCB contained Cd (2.5 ug/L and 3.6 ug/L). Cd results for MERS94 and 95 are estimated(J) due to contamination.

The serial dilution audit on Ca(48.6 %) is out of control. All Ca data are estimated (J) due to interference.

The duplicate audit for Cr($\pm 2 \times$ CRDL) was flagged(*) by the laboratory however, the technical criterion($\pm 2 \times$ CRDL) for soils was not exceeded. Cr data are not qualified on this basis but, are qualified below.

The matrix spike recovery for Sb(46.8 %) is out of control. All Sb are estimated (UJ) due to possible elevation of the detection limit.

Reviewed by: M. Miller
Date: 6/16/93

Lockheed/ESAT

ESAT-5-041.1

ICP ANALYSES:

The serial dilution audits on Cu(49.7 %), Mn(48.3 %), Zn(48 %), and Al(47.8 %) are out of control. The duplicate RPDs for Mn(42.5 %), Al(29.9 %), Cu(35.2 %), and Zn(30.9 %) were flagged(*) by the lab however, the technical criterion(35 % RPD) for soils was not exceeded for Zn and Al. Zn, and Al data are not qualified based on the duplicate audit. All Zn and Al data are estimated(J) due to interference. All Mn and Cu data are estimated (J) due to poor precision and interference.

The matrix spike recovery for Fe (-2251.3 %) was not flagged by the laboratory because the sample concentration was more than 4x the spike level. All Fe data are not qualified on this basis, but are qualified below. The serial dilution audit(48.2 %) and duplicate audit (46.6 %) for Fe are out of control. All Fe data are estimated (J) due to interference and poor precision.

GFAA ANALYSES:

The duplicate RPD for As(74.1 %) is out of control. The matrix spike recovery of As(45.3 %) is out of control. All As data are estimated (J) due to poor precision and a low bias.

The matrix spike recovery for Pb(475.2 %) was not flagged by the laboratory because the sample concentration was more than 4x the spike level. Pb data are not qualified on this basis, but are qualified below. The duplicate RPD for Pb(23.2 %) was flagged(*) by the laboratory however, the duplicate difference did not exceed the technical criterion ($\pm 2X$ CRDL) for soil samples. Pb data are not qualified on this basis, but are qualified below. The Pb result for MERS99 was flagged(W) by the laboratory and is estimated(J) due to interference.

The duplicate RPD for Tl(41.3 %) was not flagged by the laboratory because the duplicate difference does not exceed the technical criterion ($\pm 2X$ CRDL) for soil samples. Tl data are not qualified on this basis, but are qualified below. The Tl result for MERS96 was flagged(W) by the laboratory and is estimated(J) due to interference.

The Se results for MERS94 and 99 were flagged (M) by the laboratory indicating the RSD on the sample result and/or analytical spike result for Se results greater than CRDL had exceeded 20% when

Reviewed by:

M. Fletcher

Date: 6/16/93

Lockheed/ESAT

ESAT-5-041.1

GFAA ANALYSES:

assayed twice. However, the RSD values for the data are less than 20 % for Se results greater than CRDL. The reviewer removed the "M" flags from Form 1. The Se result for MERS96 was flagged(W) by the lab and is estimated (UJ) due to interference.

OTHER ANALYSES:

All Hg and CN data are acceptable.

Samples MERS89/90 are field duplicates with field RPDs for Cr(40 %) and As(40 %). As data are affected by poor field precision, but remain qualified as stated above. All Cr data are estimated (J) due to poor field precision.

Reviewed by: M. Jeffreys
Date: 6/16/93

Lockheed/ESAT

ESAT-5-041.1

STATEMENT OF SUMMARY REPORT

CASE # 19635(1)
DATA
LAB Q.C.
DATE 6/15/83

SITE Requena Island
LAB ATFS
REVIEWED BY M. Fletcher

MATRIX: see
CONC.: 0.01

CONC. : red

WATER SAMPLE SPK.

WATER SAMPLE DUP.

SOIL SAMPLE SPK.

SOIL SAMPLE DUP.

SOMA SINGH DUTTA

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided

- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J - The associated value is an estimated quantity.
- R - The data are unusable. (Note: Analyte may or may not be present.)
- UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

001

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: _____ SDG No.: MERS88

SOW No.: 3/90

EPA Sample No.	Lab Sample ID
MERS88	1302305
MERS89	1302306
MERS90	1302307
MERS91	1302308
MERS94	1303601
MERS95	1303602
MERS96	1303603
MERS97	1303604
MERS99	1303605
MERS99D	1303605D
MERS99S	1303605S

US GOVERNMENT REGIONAL LAB.
150 S. CLARK ST.
CHICAGO, ILLINOIS 60605

were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YES

If yes - were raw data generated before application of background corrections ?

Yes/No NO

Comments:

THE "E" FLAG FOR AL, CA, CU, FE, MN, & ZN ARE DUE TO THE SERIAL DILUTION PERCENT DIFFERENCE BEING GREATER THAN 10%. THIS INDICATES A POSSIBLE CHEMICAL OR PHYSICAL INTERFERENCE.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Steve Marks

Name: Steve L. Markham
Inorganic

Date: April 28, 1993

Title: Program Manager

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
002

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1302305

Level (low/med): LOW Date Received: 03/24/93

% Solids: 53.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6770		E*	P
7440-36-0	Antimony	11.7	U	N	P
7440-38-2	Arsenic	6.2		N*	F
7440-39-3	Barium	130			P
7440-41-7	Beryllium	0.39	B		P
7440-43-9	Cadmium	0.75	U		P
7440-70-2	Calcium	50500		E	P
7440-47-3	Chromium	16.4		*	P
7440-48-4	Cobalt	5.6	B		P
7440-50-8	Copper	42.4		E*	P
7439-89-6	Iron	15600		E*	P
7439-92-1	Lead	218		*	F
7439-95-4	Magnesium	18600			P
7439-96-5	Manganese	316		E*	P
7439-97-6	Mercury	0.19	U		CV
7440-02-0	Nickel	17.5			P
7440-09-7	Potassium	1370	B		P
7782-49-2	Selenium	0.72	B		F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	387	B		P
7440-28-0	Thallium	0.38	U		F
7440-62-2	Vanadium	18.9			P
7440-66-6	Zinc	255		E*	P
	Cyanide	0.94	U		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
003

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1302306

Level (low/med): LOW Date Received: 03/24/93

% Solids: 58.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13900		E*	P
7440-36-0	Antimony	10.6	U	N	P
7440-38-2	Arsenic	69.3		SN*	F
7440-39-3	Barium	397			P
7440-41-7	Beryllium	0.71	B		P
7440-43-9	Cadmium	13.8			P
7440-70-2	Calcium	31000		E	P
7440-47-3	Chromium	52.5		*	P
7440-48-4	Cobalt	12.0	B		P
7440-50-8	Copper	172		E*	P
7439-89-6	Iron	40500		E*	P
7439-92-1	Lead	1040		*	F
7439-95-4	Magnesium	11700			P
7439-96-5	Manganese	608		E*	P
7439-97-6	Mercury	0.50			CV
7440-02-0	Nickel	53.5			P
7440-09-7	Potassium	2660			P
7782-49-2	Selenium	0.34	U		F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	438	B		P
7440-28-0	Thallium	1.1	B		F
7440-62-2	Vanadium	35.5			P
7440-66-6	Zinc	952		E*	P
	Cyanide	0.85	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSES DATA SHEET

EPA COMPLIANCE NO.
004

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

MERS90

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1302307

Level (low/med): LOW Date Received: 03/24/93

% Solids: 52.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16500	E*	P	
7440-36-0	Antimony	11.8	U	N	P
7440-38-2	Arsenic	104		SN*	F
7440-39-3	Barium	464			P
7440-41-7	Beryllium	0.81	B		P
7440-43-9	Cadmium	17.8			P
7440-70-2	Calcium	32500		E	P
7440-47-3	Chromium	78.9		*	P
7440-48-4	Cobalt	15.2	B		P
7440-50-8	Copper	189		E*	P
7439-89-6	Iron	44000		E*	P
7439-92-1	Lead	947		*	F
7439-95-4	Magnesium	12300			P
7439-96-5	Manganese	614		E*	P
7439-97-6	Mercury	0.46			CV
7440-02-0	Nickel	60.5			P
7440-09-7	Potassium	3500			P
7782-49-2	Selenium	0.57	B		F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	686	B		P
7440-28-0	Thallium	1.2	B		F
7440-62-2	Vanadium	43.4			P
7440-66-6	Zinc	1160		E*	P
	Cyanide	0.95	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
005

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1302308

Level (low/med): LOW Date Received: 03/24/93

% Solids: 48.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9940	E*	P	
7440-36-0	Antimony	12.7	U	N	P
7440-38-2	Arsenic	5.7		N*	F
7440-39-3	Barium	139			P
7440-41-7	Beryllium	0.46	B		P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	10000		E	P
7440-47-3	Chromium	15.8		*	P
7440-48-4	Cobalt	5.1	B		P
7440-50-8	Copper	19.4		E*	P
7439-89-6	Iron	14400		E*	P
7439-92-1	Lead	178		*	F
7439-95-4	Magnesium	4760			P
7439-96-5	Manganese	193		E*	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.6	B		P
7440-09-7	Potassium	1700	B		P
7782-49-2	Selenium	0.41	U		F
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	454	B		P
7440-28-0	Thallium	0.41	U		F
7440-62-2	Vanadium	26.1			P
7440-66-6	Zinc	283		E*	P
	Cyanide	1.0	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE 008

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: _____ SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1303601

Level (low/med): LOW Date Received: 03/25/93

% Solids: 32.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10400	E*	P	
7440-36-0	Antimony	19.3	U	N	P
7440-38-2	Arsenic	30.5		N*	F
7440-39-3	Barium	73.3	B		P
7440-41-7	Beryllium	0.66	B		P
7440-43-9	Cadmium	1.7	B		P
7440-70-2	Calcium	19200		E	P
7440-47-3	Chromium	19.7		*	P
7440-48-4	Cobalt	11.6	B		P
7440-50-8	Copper	42.3		E*	P
7439-89-6	Iron	19600		E*	P
7439-92-1	Lead	55.9		*	F
7439-95-4	Magnesium	10400			P
7439-96-5	Manganese	172		E*	P
7439-97-6	Mercury	0.31	U		CV
7440-02-0	Nickel	19.3	B		P
7440-09-7	Potassium	2440	B		P
7782-49-2	Selenium	1.5	B	M	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	352	B		P
7440-28-0	Thallium	0.62	U		F
7440-62-2	Vanadium	26.1	B		P
7440-66-6	Zinc	482		E*	P
	Cyanide	1.6	U		CA

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
007

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1303602

Level (low/med): LOW Date Received: 03/25/93

% Solids: 57.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12900		E*	P
7440-36-0	Antimony	10.8	U	N	P
7440-38-2	Arsenic	8.7		N*	F
7440-39-3	Barium	81.7			P
7440-41-7	Beryllium	0.66	B		P
7440-43-9	Cadmium	1.5	B		P
7440-70-2	Calcium	4470		E	P
7440-47-3	Chromium	20.5		*	P
7440-48-4	Cobalt	10.5	B		P
7440-50-8	Copper	360		E*	P
7439-89-6	Iron	18100		E*	P
7439-92-1	Lead	209		*	F
7439-95-4	Magnesium	3880			P
7439-96-5	Manganese	325		E*	P
7439-97-6	Mercury	0.17	U		CV
7440-02-0	Nickel	17.6			P
7440-09-7	Potassium	2600			P
7782-49-2	Selenium	0.35	U		F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	231	B		P
7440-28-0	Thallium	0.45	B		F
7440-62-2	Vanadium	31.1			P
7440-66-6	Zinc	149		E*	P
	Cyanide	0.87	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

INORGANIC ANALYSES DATA SHEET

SAMPLE NO.
008

MERS96

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1303603

Level (low/med): LOW Date Received: 03/25/93

% Solids: 54.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14000	E*	P	
7440-36-0	Antimony	11.4	U	N	P
7440-38-2	Arsenic	8.5		N*	F
7440-39-3	Barium	71.6	B		P
7440-41-7	Beryllium	0.75	B		P
7440-43-9	Cadmium	0.74	U		P
7440-70-2	Calcium	5550		E	P
7440-47-3	Chromium	22.2		*	P
7440-48-4	Cobalt	10.5	B		P
7440-50-8	Copper	29.4		E*	P
7439-89-6	Iron	19800		E*	P
7439-92-1	Lead	42.8		*	F
7439-95-4	Magnesium	4530			P
7439-96-5	Manganese	286		E*	P
7439-97-6	Mercury	0.18	U		CV
7440-02-0	Nickel	23.8			P
7440-09-7	Potassium	3270			P
7782-49-2	Selenium	0.37	U	W	F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	259	B		P
7440-28-0	Thallium	0.57	B	W	F
7440-62-2	Vanadium	32.2			P
7440-66-6	Zinc	92.1		E*	P
	Cyanide	0.92	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

009

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1303604

Level (low/med): LOW Date Received: 03/25/93

% Solids: 39.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6140		E*	P
7440-36-0	Antimony	15.9	U	N	P
7440-38-2	Arsenic	5.1		N*	F
7440-39-3	Barium	245			P
7440-41-7	Beryllium	0.51	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	22800		E	P
7440-47-3	Chromium	11.2		*	P
7440-48-4	Cobalt	2.1	U		P
7440-50-8	Copper	24.1		E*	P
7439-89-6	Iron	9310		E*	P
7439-92-1	Lead	482		*	F
7439-95-4	Magnesium	7700			P
7439-96-5	Manganese	164		E*	P
7439-97-6	Mercury	0.50			CV
7440-02-0	Nickel	3.8	B		P
7440-09-7	Potassium	1160	B		P
7782-49-2	Selenium	0.57	B		F
7440-22-4	Silver	2.1	U		P
7440-23-5	Sodium	605	B		P
7440-28-0	Thallium	0.51	U		F
7440-62-2	Vanadium	2.1	U		P
7440-66-6	Zinc	617		E*	P
	Cyanide	1.3	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

INORGANIC ANALYSES DATA SHEET

*** SAMPLE NO.
010
MERS99

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water): SOIL Lab Sample ID: 1303605

Level (low/med): LOW Date Received: 03/25/93

% Solids: 46.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9910	-	E*	P
7440-36-0	Antimony	13.3	U	N	P
7440-38-2	Arsenic	21.6	-	SN*	F
7440-39-3	Barium	73.0	B	-	P
7440-41-7	Beryllium	0.92	B	-	P
7440-43-9	Cadmium	0.86	U	-	P
7440-70-2	Calcium	7090	-	E	P
7440-47-3	Chromium	21.1	-	*	P
7440-48-4	Cobalt	10.6	B	-	P
7440-50-8	Copper	160	-	E*	P
7439-89-6	Iron	38300	-	E*	P
7439-92-1	Lead	114	-	W*	F
7439-95-4	Magnesium	2950	-	-	P
7439-96-5	Manganese	319	-	E*	P
7439-97-6	Mercury	0.21	U	-	CV
7440-02-0	Nickel	22.6	-	-	P
7440-09-7	Potassium	1400	B	-	P
7782-49-2	Selenium	1.1	B	M	F
7440-22-4	Silver	1.7	U	-	P
7440-23-5	Sodium	323	B	-	P
7440-28-0	Thallium	1.1	B	-	F
7440-62-2	Vanadium	25.6	-	-	P
7440-66-6	Zinc	147	-	E*	P
	Cyanide	1.1	U	-	CA

MF 6-16-93

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

Lab Name: AMERICAN ANALYTICAL

Contract: 68-D1-0024

Lab Code: AATS

Case No.: 19635

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum	40.0	U	57.8	B	48.0	B	42.6	B	14.074	B	P
Antimony	31.0	U	31.0	U	31.0	U	31.0	U	6.200	U	P
Arsenic	2.0	U	2.0	U	2.0	U			0.400	U	F
Barium	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Cadmium	2.5	B	2.0	U	3.6	B	4.4	B	0.400	U	P
Calcium	202.0	U	202.0	U	202.0	U	202.0	U	40.400	U	P
Chromium	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Cobalt	4.0	U	-8.8	B	4.0	U	13.8	B	0.800	U	P
Copper	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Iron	4.0	U	7.7	B	6.9	B	4.0	U	1.583	B	P
Lead	16.0	U	16.0	U	16.0	U	16.0	U			P
Magnesium	206.0	U	206.0	U	206.0	U	206.0	U	41.200	U	P
Manganese	1.0	U	1.0	U	1.3	B	1.0	U	0.200	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV
Nickel	6.0	U	6.0	U	6.0	U	6.0	U	1.200	U	P
Potassium	330.0	U	330.0	U	330.0	U	330.0	U	66.000	U	P
Selenium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	F
Silver	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Sodium	554.0	U	554.0	U	554.0	U	554.0	U	110.800	U	P
Thallium	1.0	U	-1.2	B	1.0	U	-1.2	B	0.200	U	F
Vanadium	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Zinc	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.500	U	CA

3
BLANKS

029

Lab Name: AMERICAN ANALYTICAL

Contract: 68-D1-0024

Lab Code: AATS

Case No.: 19635

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum		-									NR
Antimony		-									NR
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U			F
Barium		-									NR
Beryllium		-									NR
Cadmium		-									NR
Calcium		-									NR
Chromium		-									NR
Cobalt		-									NR
Copper		-									NR
Iron		-									NR
Lead		16.0	U								P
Magnesium		-									NR
Manganese		-									NR
Mercury		-									NR
Nickel		-									NR
Potassium		-									NR
Selenium		1.0	U	1.0	U	1.0	U				F
Silver		-									NR
Sodium		-									NR
Thallium		-1.6	B	1.0	U						F
Vanadium		-									NR
Zinc		-									NR
Cyanide		-									NR

Lab Name: AMERICAN_ANALYTICAL_____

Contract: 68-D1-0024

Lab Code: AATS_____

Case No.: 19635_____

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)					Prepa- ration Blank	C	M
			1	C	2	C	3			
Aluminum										NR
Antimony										NR
Arsenic			2.0	U	2.0	U	2.0	U		F
Barium										NR
Beryllium										NR
Cadmium										NR
Calcium										NR
Chromium										NR
Cobalt										NR
Copper										NR
Iron										NR
Lead	1.0	U	1.0	U	1.0	U	1.0	U	0.200	F
Magnesium										NR
Manganese										NR
Mercury										NR
Nickel										NR
Potassium										NR
Selenium			1.0	U						F
Silver										NR
Sodium										NR
Thallium										NR
Vanadium										NR
Zinc										NR
Cyanide										NR

3
BLANKS

031

Lab Name: AMERICAN ANALYTICAL _____

Contract: 68-D1-0024

Lab Code: AATS _____

Case No.: 19635 _____

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)					Prepa- ration Blank	C	M
			1	C	2	C	3			
Aluminum		-								NR
Antimony										NR
Arsenic	2.0	U	2.0	U	2.0	U				F
Barium										NR
Beryllium										NR
Cadmium										NR
Calcium										NR
Chromium										NR
Cobalt										NR
Copper										NR
Iron										NR
Lead			1.0	U	1.0	U	1.0	U		F
Magnesium										NR
Manganese										NR
Mercury										NR
Nickel										NR
Potassium										NR
Selenium										NR
Silver										NR
Sodium										NR
Thallium										NR
Vanadium										NR
Zinc										NR
Cyanide										NR

Lab Name: AMERICAN_ANALYTICAL_____

Contract: 68-D1-0024

Lab Code: AATS_____

Case No.: 19635_____

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)				Prepa- ration Blank	C	M
			1	C	2	C			
Aluminum		-							
Antimony		-							
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	
Barium		-							
Beryllium		-							
Cadmium		-							
Calcium		-							
Chromium		-							
Cobalt		-							
Copper		-							
Iron		-							
Lead		1.0	U	1.0	U	1.0	U		
Magnesium		-							
Manganese		-							
Mercury		-							
Nickel		-							
Potassium		-							
Selenium		-							
Silver		-							
Sodium		-							
Thallium		-							
Vanadium		-							
Zinc		-							
Cyanide		-							

3
BLANKS

033

Lab Name: AMERICAN_ANALYTICAL_____

Contract: 68-D1-0024

Lab Code: AATS_____

Case No.: 19635_____

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)					Prepa- ration Blank	C	M	
			1	C	2	C	3				
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			1.0	U	1.0	U	1.0	U			F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

Lab Name: AMERICAN_ANALYTICAL_____

Contract: 68-D1-0024

Lab Code: AATS_____

Case No.: 19635_____

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			1.0	U	1.0	U	1.0	U			F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

035

Lab Name: AMERICAN ANALYTICAL _____

Contract: 68-D1-0024

Lab Code: AATS _____

Case No.: 19635 _____

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M	
			1	C	2	C	3	C				
Aluminum												NR
Antimony												NR
Arsenic												NR
Barium												NR
Beryllium												NR
Cadmium												NR
Calcium												NR
Chromium												NR
Cobalt												NR
Copper												NR
Iron												NR
Lead	1.0	U	1.0	U	1.0	U	1.0	U				F
Magnesium												NR
Manganese												NR
Mercury												NR
Nickel												NR
Potassium												NR
Selenium												NR
Silver												NR
Sodium												NR
Thallium												NR
Vanadium												NR
Zinc												NR
Cyanide												NR

3
BLANKS

036

Lab Name: AMERICAN_ANALYTICAL_____

Contract: 68-D1-0024

Lab Code: AATS_____

Case No.: 19635_____

SAS No.: _____

SDG No.: MERS88

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			1.0	U	1.0	U	1.0	U			F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

038

Lab Name: AMERICAN ANALYTICAL

Contract: 68-D1-0024

MERS99S

Lab Code: AATS

Case No.: 19635

SAS No.: _____

SDG No.: MERS88

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: _46.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	100.3678		13.3047	U	214.59	46.8	N	P
Arsenic	75-125	29.3562		21.5777		17.17	45.3	N	F
Barium	75-125	994.8330		72.9773	B	858.37	107.4	P	
Beryllium	75-125	24.9661		0.9155	B	21.46	112.1	P	
Cadmium	75-125	23.3185		0.8584	U	21.46	108.7	P	
Calcium									NR
Chromium	75-125	112.3901		21.0670		85.84	106.4	P	
Cobalt	75-125	238.5464		10.6485	B	214.59	106.2	P	
Copper	75-125	271.7391		159.8837		107.30	104.2	P	
Iron		28613.1833		38275.2635		429.18	-2251.3	P	
Lead		154.5064		113.7339		8.58	475.2	F	
Magnesium									NR
Manganese	75-125	481.7502		318.8137		214.59	75.9	P	
Mercury	75-125	1.0333		0.2146	U	1.07	96.6	CV	
Nickel	75-125	254.3760		22.5781		214.59	108.0	P	
Potassium									NR
Selenium	75-125	5.1974		1.1416	B	4.29	94.5	F	
Silver	75-125	22.1944		1.7167	U	21.46	103.4	P	
Sodium									NR
Thallium	75-125	20.5150		1.1288	B	21.46	90.3	F	
Vanadium	75-125	241.7536		25.6167		214.59	100.7	P	
Zinc	75-125	379.6768		147.3897		214.59	108.2	P	
Cyanide	75-125	10.3218		1.0730	U	10.73	96.2	CA	

Comments:

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

039

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

Matrix (soil/water) : SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit	%R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum										NR
Antimony			154.01		31.00	U	120.0	128.3	P	
Arsenic									NR	
Barium									NR	
Beryllium									NR	
Cadmium									NR	
Calcium									NR	
Chromium									NR	
Cobalt									NR	
Copper									NR	
Iron									NR	
Lead									NR	
Magnesium									NR	
Manganese									NR	
Mercury									NR	
Nickel									NR	
Potassium									NR	
Selenium									NR	
Silver									NR	
Sodium									NR	
Thallium									NR	
Vanadium									NR	
Zinc									NR	
Cyanide									NR	

Comments:

6
DUPLICATES

EPA SAMPLE NO.

040

MERS99D

Lab Name: AMERICAN ANALYTICAL

Contract: 68-D1-0024

Lab Code: AATS

Case No.: 19635

SAS No.: _____

SDG No.: MERS88

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 46.6

% Solids for Duplicate: 47.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		9910.1609		7329.3974		29.9	*	P
Antimony		13.3047	U	13.3047	U			P
Arsenic	4.3	21.5777		9.9142		74.1	*	F
Barium		72.9773	B	59.9575	B	19.6		P
Beryllium		0.9155	B	0.7837	B	15.5		P
Cadmium		0.8584	U	0.8584	U			P
Calcium	2145.9	7089.5124		6299.4494		11.8		P
Chromium	4.3	21.0670		15.7013		29.2	*	P
Cobalt		10.6485	B	4.4828	B	81.5		P
Copper		159.8837		112.0708		35.2	*	P
Iron		38275.2635		23813.8811		46.6	*	P
Lead		113.7339		90.1288		23.2	*	F
Magnesium	2145.9	2947.5004		2328.3197		23.5		P
Manganese		318.8137		207.0923		42.5	*	P
Mercury		0.2146	U	0.2146	U			CV
Nickel	17.2	22.5781		15.7086	B	35.9		P
Potassium		1400.6489	B	1015.3704	B	31.9		P
Selenium		1.1416	B	1.2446	B	8.6		F
Silver		1.7167	U	1.7167	U			P
Sodium		323.0721	B	323.4017	B	0.1		P
Thallium		1.1288	B	0.7425	B	41.3		F
Vanadium	21.5	25.6167		17.9270	B	35.3		P
Zinc		147.3897		107.8867		30.9	*	P
Cyanide		1.0730	U	1.0730	U			CA

10

Instrument Detection Limits (Quarterly)

044

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

ICP ID Number: ARL3560 Date: 02/22/93

Flame AA ID Number :

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	40.0	P
Antimony	217.59		60	31.0	P
Arsenic			10		NR
Barium	445.40		200	4.0	P
Beryllium	313.40		5	1.0	P
Cadmium	226.50		5	2.0	P
Calcium	317.92		5000	202.0	P
Chromium	267.72		10	4.0	P
Cobalt	228.62		50	4.0	P
Copper	324.75		25	5.0	P
Iron	259.61		100	4.0	P
Lead	220.35		3	16.0	P
Magnesium	279.08		5000	206.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	6.0	P
Potassium	776.49		5000	330.0	P
Selenium			5		NR
Silver	328.07		10	4.0	P
Sodium	589.00		5000	554.0	P
Thallium			10		NR
Vanadium	292.40		50	4.0	P
Zinc	213.86		20	2.0	P

Comments:

10
Instrument Detection Limits (Quarterly)

045

Lab Name: AMERICAN ANALYTICAL

Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635

SAS No.: _____

SDG No.: MERS88

ICP ID Number: _____

Date: 02/04/93

Flame AA ID Number : _____

Furnace AA ID Number : PE5100A_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	1.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

046

Lab Name: AMERICAN_ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

ICP ID Number: Date: 02/08/93

Flame AA ID Number :

Furnace AA ID Number : VAR400A

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	1.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

047

Lab Name: AMERICAN_ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

ICP ID Number: Date: 01/31/93

Flame AA ID Number :

Furnace AA ID Number : VAR400B

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	2.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

048

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

ICP ID Number: Date: 02/04/93

Flame AA ID Number :

Furnace AA ID Number : PE5100A

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	1.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

049

Lab Name: AMERICAN_ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

ICP ID Number: Date: 01/31/93

Flame AA ID Number :

Furnace AA ID Number : VAR400B

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BZ	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

050

Lab Name: AMERICAN_ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

ICP ID Number: Date: 02/04/93

Flame AA ID Number :

Furnace AA ID Number : PE5100A

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BZ	5	1.0	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

051

Lab Name: AMERICAN_ANALYTICAL Contract: 68-D1-0024
 Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88
 ICP ID Number: Date: 01/31/93
 Flame AA ID Number :
 Furnace AA ID Number : VAR400B

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	8Z	10	1.0	F
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

052

Lab Name: AMERICAN_ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 19635 SAS No.: SDG No.: MERS88

ICP ID Number: Date: 02/23/93

Flame AA ID Number : LEEMAN

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.2	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. (OH)

Case No. 19635 Site Name Location: Treasure Island-MA

Contractor or EPA Lab: AATS Data User: PRC

No. of Samples: 9 Date Samples or Data Received: 4-29-93

Have Chain-of-Custody records been received? YES NO

Have traffic reports or packing lists been received? YES NO

If no, are traffic report or packing list numbers written on the chain-of-custody record? YES NO

If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES NO

No. of samples claimed: 9 No. of samples received: 9

Received by: Lynette Burnets Date: 4-29-93

Received by LSSE: Dorothy M. May Date: 4/30/93

Review started: 6-15-93 Reviewer Signature: M. Fletcher

Total time spent on review: 12.5 Date review completed: 6-16-93

Copied by: Robert Feyer Date: 6-21-93

Mailed to user by: CD MCANN Date: 6-22-93

DATA USERS:

Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCR

Data received by: Dilled Yelburgh Date: JUN 24 1993

Data review received by: _____ Date: _____

Inorganic Data Complete() Suitable for Intended Purpose() If OK

Organic Data Complete() Suitable for Intended Purpose() List

Dioxin Data Complete() Suitable for Intended Purpose() prblems

SAS Data Complete() Suitable for Intended Purpose() below.

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____